AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Currently amended): A method of data analysis for determining a base sequence for nucleic acid, ~~electrophoresing~~ based on detected data of electrophoresis of a fragment sample of nucleic acid ~~and determining the base sequence of the nucleic acid on the basis of detected data~~, comprising steps of:

(A) performing waveform shaping by Fourier transformation on data of a certain number N of points from the head of the detected data with a parameter of a previously set peak interval;

(B) determining the base sequence as to data of P points (P < N) from the head of the data of N points;

(C) obtaining a peak interval from the result of the sequence determination;

(D) performing waveform shaping by Fourier transformation on data of N points from a position returning by L points (L < M) from final data precedently subjected to the sequence determination with a parameter of a precedently obtained peak interval; and

(E) determining the base sequence as to data of M points (M < N) of a central portion among data of N points subjected to second or later waveform shaping, so as to be connected with data precedently subjected to the sequence determination ~~among data of N points subjected to second or later waveform shaping~~, wherein

the steps (E) → (C) → (D) are repeated until data disappear or no analysis is required despite presence of data.

2. (Currently amended): The method of <u>data analysis for</u> determining a base sequence for nucleic acid according to claim 1, wherein

FFT treatment is applied <u>to at least one of steps (A) or (D)</u> as the waveform shaping by Fourier transformation.

3. (Currently amended): The method of <u>data analysis for</u> determining a base sequence for nucleic acid according to claim 2, assuming that N is equal to 2^n, M is equal to $2^{(n-1)}$ and L is equal to $2^{(n-2)}$.